

MINDSET

Generosity: Losing a Little Means Gaining a Lot—Including Better Heart Health

Want to lower blood pressure and reduce stress? Science says: Be generous.

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Illustration by
Fei Meng

By **Makai Allbert** | December 21, 2024 Updated: December 30, 2024

This is part 6 in “[Virtue Medicine](#)”

What medicine is safe, effective, free, and requires only a subtle shift in perspective? We welcome you to explore the neglected link between virtue and health—‘Virtue Medicine.’

In a lab at the University of British Columbia, beneath the glow of fluorescent lights, a toddler—still too young to form a complete sentence—sat before a small bowl of Goldfish crackers and a plush puppet named “Monkey.”

When asked to share a cracker, the child did something that might surprise anyone who believes young children are inherently self-centered. Instead of hoarding the treat, she extended her tiny hand and gave Monkey a cracker, [eliciting](#) a friendly “YUMMMM!” sound.

Each time the toddler gave Monkey one of her crackers, her face lit up with superlative delight. This burst of happiness offers a glimpse into something science has begun documenting with mounting evidence:

Giving to others—generosity—can spark profound joy and lead to measurable well-being at any age.

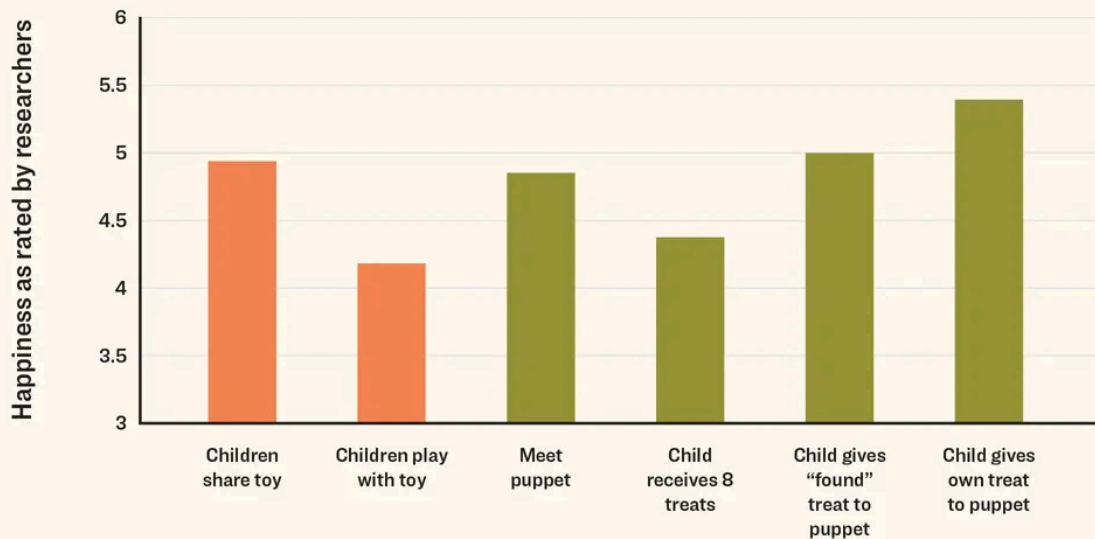
An Unfailing Source of Happiness

The Goldfish cracker [experiment](#) pinpointed what kind of giving feels particularly good. To do this, the researchers varied the conditions. Sometimes, children gave up one of their treats; other times, they were offered an extra that the researcher “found.” The purpose of this variation was to distinguish the difference, if any, between simply giving and giving by forfeiting something personally valuable.

As expected, the toddlers expressed joy upon first meeting the stuffed animal or when given a toy. Researchers documented the children’s happiness through behavioral observation and facial analysis.

Happiness soared, manifesting as a “warm glow,” when the toddlers engaged in “costly giving”—sacrificing their own treat and sharing it with the puppet rather than donating the “found” treat provided by the researcher.

Generosity Evokes Higher Happiness



Source: PLOS One

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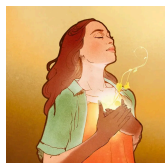
Illustration by The Epoch Times

Personal observation may doubt these findings, as most toddlers' favorite word is "mine!" Furthermore, the toddlers in this experiment were Canadian, prompting some to claim that cultural conditioning shaped their generosity. Yet this puppet experiment has since been replicated in a rural village on [Vanuatu](#), a small, isolated island in the South Pacific, as well as in the [Netherlands](#) and China, showing that toddlers all over seem to enjoy sharing their personal treats the most.

Premium Picks



Resentment: The Unhealthy Guest in the Human Heart



Gratitude: An Alternative Medicine for Anger and Depression

In a [study](#) with 200,000 respondents from 136 countries, ranging from affluent countries such as Canada to less wealthy nations such as Uganda, giving money to someone in need consistently made people happier. This trend is [congruent](#) across different circumstances and communities and is not limited to cash.

A Medicine Better Than Pills?

Generosity goes beyond subjective well-being; it turns out it's great for the heart, too.

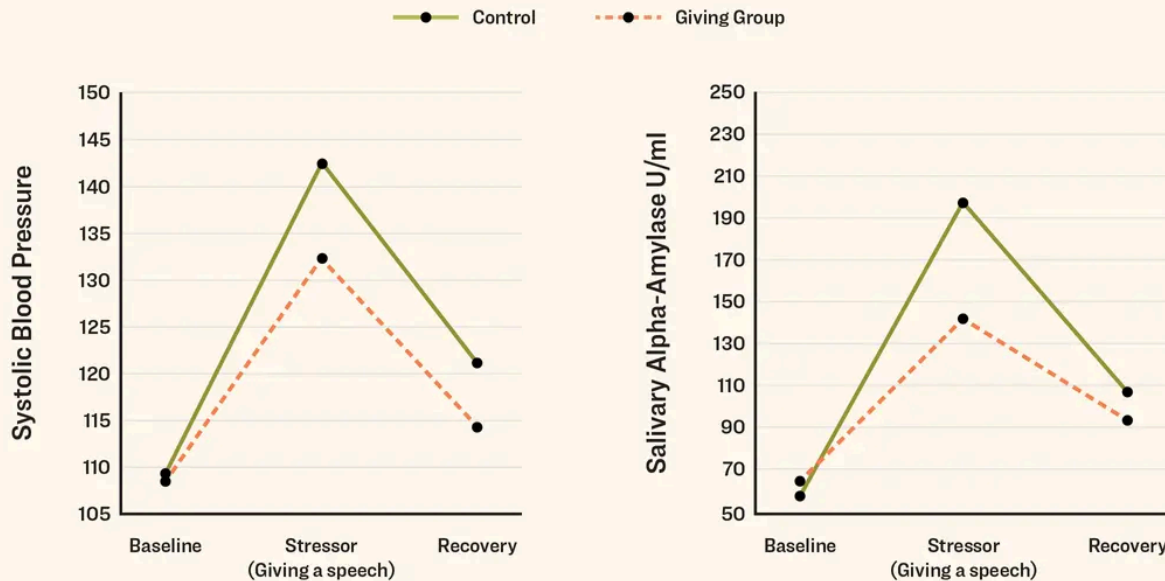
In a [study](#) published in the journal *Health Psychology*, researchers asked older adults with high blood pressure to spend money on others over three weeks. The results were impressive: Participants' blood pressure dropped by magnitudes comparable to those seen with starting a new medication, exercising regularly, or making major changes to their diet, according to the authors.

Why does giving lessen the strain on the heart? Scientists suggest that acts of generosity [trigger](#) a cascade of calming, “feel-good” hormones such as oxytocin, which [reduces stress](#) and pressure on arteries and veins.

One [study](#) put this to the test by having participants perform a simple, generous act, such as writing a supportive note to a friend, before facing a stressful task (preparing and delivering a speech within a time limit).

The “generous” group had significantly fewer stress-related markers than the control group. For instance, they had smaller increases in systolic blood pressure, which alleviated the cardiovascular stress response. Additionally, they had lower levels of salivary alpha-amylase, an enzyme linked to the “fight-or-flight” response, indicating less activation of the sympathetic nervous system.

Generosity Lowers Acute Stress Response



Source: Psychophysiology

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Illustration by The Epoch Times

Generosity often stems from altruism—a selfless [motivation](#) for the well-being of others—and reflects a deeper human capacity to act for others’ benefit without expecting anything in return. Abigail Marsh, a neuroscientist and expert on altruism, highlights that altruistic people are less sensitive to negative emotions and have a “reduced responsiveness to anger, which is helpful because oversensitivity to anger can lead to hostility and aggression,” she told The Epoch Times.

An altruist’s emotional selectivity may help explain why generosity reduces stress, reflecting their resilience to negative stimuli.

Pain Relief

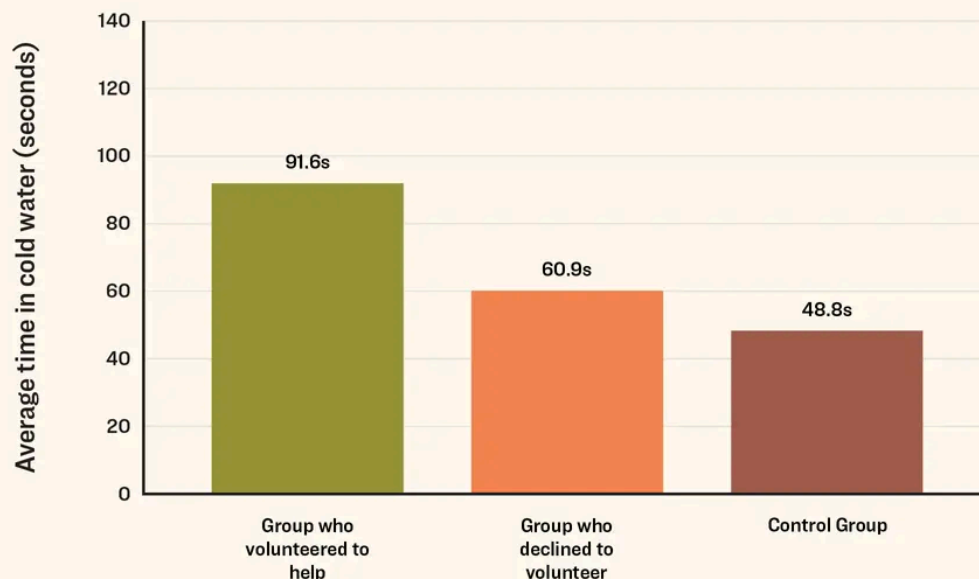
Giving to others provides another unexpected benefit: relief from physical pain.

A [paper](#) published in PNAS demonstrated that generous behavior reduces pain perception and even improves pain tolerance. In one example, blood donors reported feeling significantly less discomfort during the needle prick than those having blood drawn for personal medical tests.

In another example, researchers verified the pain tolerance effect through the cold pressor test, in which participants submerged their hands in freezing water and saw how long they could tolerate the cold.

Those who had just volunteered to revise a handbook for migrant workers' children without pay reported significantly less pain and endured the cold for much longer than those who either declined to volunteer or completed the task as a mandatory assignment (control group). On average, the group that volunteered to help tolerated the pain nearly twice as long as the control group.

Altruistic Individuals Have a Higher Pain Tolerance



Source: PNAS

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Strikingly, out of all the participants, only 11.6 percent managed to tolerate the icy water for the maximum time of three minutes. Who were these remarkably resilient few? Each one belonged to the generous volunteering group.

The same study applied this natural pain-relieving effect to cancer patients by having them practice helping others for three weeks. This included preparing meals for other patients and cleaning public spaces within the hospital. The result? The cancer patients reported clinically significant reductions in chronic pain levels, with improvements observed over several weeks.

The authors concluded that these findings show that the act of incurring personal costs to help others may supplement current pain therapies and promote the welfare of those suffering from chronic pain.

Neuroscience of Generosity: It's Not All Tit for Tat

Marsh explained that brain regions such as the ventral striatum and ventral tegmental area are highly active when people engage in generosity. These regions are the same ones that light up during pleasurable experiences such as eating or achieving a goal, suggesting that being generous feels intrinsically rewarding on a neurological level.

Accordingly, the brain processes generosity differently depending on the motivation behind it. According to Marsh, different motivations for generosity—reciprocity, fairness, or pure altruism—are associated with distinct patterns of brain activity.

For example, helping someone because of concerns about fairness (wanting to ensure equality) engages brain regions responsible for rule-based thinking. On the other hand, purely altruistic actions—helping someone out of compassion or empathy—activate networks linked to emotional understanding and connection.

But why do some people go to extraordinary lengths to help others, even strangers, without expecting anything in return?

Marsh's [research](#) on anonymous kidney donors challenges the common assumption that people give only out of a selfish impulse.

“There was some data that suggested that when people choose to give to others, it’s mostly because they are actively suppressing the desire to be selfish,” she said. “But we tested this question in altruistic kidney donors and found no evidence it was true.”

These individuals showed more activity in empathy-related structures in the brain. Their brain activity “mirrored” the stranger’s brain in a way very similar to when they experienced pain themselves. Marsh found it interesting that these altruistic people had larger amygdalae—a brain region that plays a key role in emotions—which is the opposite of people who are psychopathic or highly uncaring. These donors’ decisions reflected their genuine value of the well-being of others.

“In other words, they help others because they intrinsically value their welfare,” Marsh said.

William Chopik, an associate professor of personality psychology at Michigan State University, suggests that this generosity binds people together, fostering goodwill and cooperation.

These findings highlight a truth about generosity: It isn’t always about getting something back; it’s not always tit for tat. For many, it’s based on their values, empathy, and the joy they get from helping someone or sharing. And indeed, compared with animals, humans stand out for their capacity to care deeply about a broad range of individuals, including strangers. We seem uniquely wired to find such acts of caring intrinsically rewarding, Marsh added.

On the opposite side of the spectrum, greed—the persistent desire for more, whether it’s money, material goods, or recognition—seems to have less favorable effects on health and happiness. Greedy individuals may experience temporary satisfaction from acquiring

something new, such as a sense of pride after making a big purchase. However, that feeling [fades quickly](#). Because greedy people experience “never-enough” mentalities, they develop a [dysregulated reward system](#) comparable to that of people with an addiction, which can lead to [dissatisfaction](#), more stress, and [diminished well-being](#).

The Boundaries of Generosity

Is all giving equal? Apparently not.

A [study](#) published in the journal *Collabra: Psychology* found that the type of giving, the perceived effect of the giving, and the context significantly determined the benefits of generosity.

For example, gifting an experience such as taking someone out for dinner or treating them to a concert tends to [foster](#) closer social bonds. On the other hand, material gifts, while appreciated, are less consistently associated with relationship-strengthening outcomes unless they are deeply personalized or tied to shared experiences.

The study suggests that these differences arise because experiences are more likely to create meaningful connections, fond memories, and a sense of shared joy. Contrastingly, material gifts may sometimes feel transactional or less personal.

Further, more is not always better. Generosity is subject to the law of diminishing returns. Just like cake becomes less enjoyable after too many slices, an abundance of gifts—or overly lavish ones—doesn’t necessarily yield more happiness. A small, meaningful gesture such as purchasing a cup of coffee for someone can provide the same emotional uplift.

Generosity thrives in authenticity. Genuine, autonomous giving enhances happiness; however, giving for extrinsic reasons, such as pressure or obligation, can diminish or even negate all benefits.

For instance, one participant in a 2022 [study](#) described a donation scenario wherein the participant felt pressured by an overly

persistent charity solicitor outside a grocery store. Although the charity was for a good cause, the lack of choice made the experience frustrating and emotionally unsatisfying. In contrast, a participant described covering a friend's rent out of care for the person, emphasizing the voluntary nature of the act and yielding higher emotional benefit.

The pressure of obligation can be particularly noticeable during the holidays. Accordingly, the holidays can amplify stressors, manifesting as financial strain or the urge to outdo others, yet also represent a unique time to reflect on the virtue of generosity versus greed.

A 2019 [study](#) even found that while you would expect generosity to increase in December, it actually tends to decrease, with people reporting high levels of holiday-related stress giving less than they might at other times of the year.

From toddlers to adults, science shows that generosity reliably correlates with improved health and happiness. Yet giving doesn't have to be overwhelming. We can be generous in our day-to-day lives, Chopik told The Epoch Times: Help a neighbor take out the trash, donate a little to charity, volunteer at a soup kitchen, or simply lend an ear to a friend during a difficult time.

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Share Your Story: health@epochtimes.nyc

Have you experienced personal transformation or improved health through cultivating virtues? Please share your experience with us.

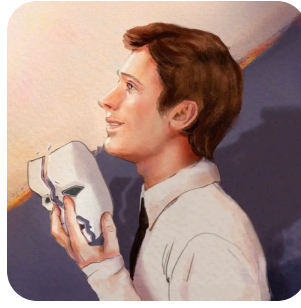
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Virtue Medicine



Part 1

Gratitude: An Alternative Medicine for Anger and Depression



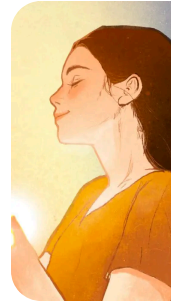
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